



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

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RES 10-12

November 4, 2002

The Honorable Geraldine Genco
Mayor, Village of Tequesta
P.O. Box 3273
Tequesta, FL 33469-0273

Subject: Resolution No. 67-01/02 – Opposing the Loxahatchee River MFL

Mayor and Council Members:

District staff has reviewed Village Resolution No. 67-01/02 opposing the 35-cfs minimum flow and level (MFL) proposed for the Loxahatchee River and the need to also include seasonal flow criteria for the river. We are not clear what specific information was provided to the Council prior to the vote, but the District would like to provide each councilperson with the following background information:

Basis of the Proposed MFL Criteria

1. The Loxahatchee watershed represents a highly altered ecosystem. Permanent opening of the Jupiter Inlet in 1947 now exposes the lower portion of the river to the daily tidal regime. Construction of the C-18 canal to provide flood protection for the Jupiter/Tequesta area has drained the Loxahatchee Slough (the headwaters of the river) resulting in a loss of over 8,000 acre feet of storage within the watershed.
2. Resource problems occur within the NW Fork of the Loxahatchee River primarily during the dry season when Lainhart Dam flows drop below 35 cfs and allows saltwater to penetrate upstream of river mile 9 impacting remaining freshwater vegetation communities. During extreme drought conditions, these flows may reach zero and allow saltwater to move as far upstream as Trapper Nelson's (river mile 10.7).
3. The proposed minimum flow criteria were developed to prevent significant harm to water resources of ecology of the area as provided in *Chapter 373.042(1) F.S.* To prevent further damage to these freshwater communities, the District has proposed a minimum flow of 35 cfs (as measured at the Lainhart Dam) which can not be exceeded more than 20 days duration, more often than once every 6 years. Under current conditions (1990-2001) the river fell below 35 cfs 11 out of 12 years for total of 1,081 days (about 3 years in total). The proposed MFL would greatly improve this condition.
4. It should also be understood that during the dry season a minimum flow of 35 cfs provided by the Lainhart Dam equates to about 30 cfs discharged from Cypress Creek, 7 cfs from Hobe Grove Ditch, and 5 cfs from Kitching Creek, for a total flow of 77 cfs delivered to the river during the dry season.

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5. The District has an existing agreement (1982 Consent Agreement) to provide at least 50 cfs of flow to the river as measured at the Lainhart Dam when available. These water deliveries will continue, even after the MFL is adopted.
6. SFWMD staff have been working with the Florida Department of Environmental Protection (FDEP), Jonathan Dickinson State Park (JDSP), the Loxahatchee River Management Coordinating Council, and members of the public over the past two years to develop a MFL for the NW Fork of the Loxahatchee River. Due to concerns about new development proposed within the Loxahatchee watershed, there is general agreement that an initial MFL needs to be established for the river as soon as possible for consideration in the District's consumptive use permitting process.

MFL Recovery Plan

1. To meet the proposed MFL, the District has developed a MFL Recovery Plan designed to immediately increase water storage within the basin to meet the proposed MFL criteria by 2006. Key projects currently underway include: construction of the Loxahatchee Slough Structure (\$2.7 million) to capture and store water in the slough for later delivery to the river during the dry season; widening the M-canal and constructing the C-2 pump station (\$3.0 million) to provide flows from the L-8 canal when available; and construction of a flowway under Northlake Boulevard (\$1.2 million) to provide flows from the West Palm Beach Water Catchment Area to the headwaters of the Loxahatchee River.
2. As part of the Northern Palm Beach County Comprehensive Water Management Plan (NPBCCWMP), the District has committed over \$39 million for water conveyance and water storage projects over the next 14 years to reconnect the regional system with the headwaters of the Loxahatchee River. Construction of these projects will provide a target flow of 65 cfs to the NW Fork of the river by 2018.
3. The District recognizes that the proposed MFL represents only a partial solution to the problems that exist within the Loxahatchee watershed. As defined in state statutes, MFL criteria are only intended to protect the resource from significant harm. Restoration of the river will be accomplished as outlined on page 3 of this letter.

Seasonal Flow Criteria

District staff examined seasonal variations in flow to the river as part of the MFL analysis. A seasonal variation component to the MFL for the Loxahatchee River was not considered to be appropriate because of the following considerations:

1. Average flows (about 100 cfs) and typical peak flows (as much as 700 cfs) to the river, tend to follow normal seasonal rainfall patterns and seem to be appropriate to protect existing resources in the watershed.
2. As discussed previously, the primary problem that impacts the river are low flow events experienced during the dry season and during extended droughts. Extended dry periods allow saltwater to encroach up river and cause harm to water resources.
3. There is little evidence indicating that wet season flows, or flows that occur at any other time of year (other than the dry season) are currently impacting the resource due to an existing facility, water withdrawal or water management practice.
4. Establishing a seasonally based MFL, although suggested as an option by Chapter 373.042(1) F.S. is inconsistent with established District policy for other water bodies, including the greater Everglades, Lake Okeechobee, Caloosahatchee River and Estuary and the St. Lucie

River and Estuary. Seasonally based flow targets for these areas are being addressed through restoration plans.

River Restoration Efforts

1. SFWMD staff is also actively engaged with the FDEP, other agencies, local government and the public, to develop an achievable restoration goal for the river and estuary. The District has committed substantial technical staff and resources to develop seasonally managed flow criteria for the river as part of the restoration process. This work is already underway and is viewed by the District as the appropriate vehicle to develop seasonal flow criteria for the river.
2. The District is also working with the USACE to address the environmental restoration needs of the Loxahatchee watershed as part of the regional Comprehensive Everglades Restoration planning (CERP) process. As part of CERP, the District and USACE are developing the Northern Palm Beach County Project Implementation Report (PIR). The PIR identifies a number of key projects that will provide increased storage within the basin that will provide more water for the NW Fork of the Loxahatchee River. These projects include: construction of the L-8 reservoir which will add 48,000 ac-ft of storage to the basin, C-18 basin storage, C-51/C-17 back pumping and treatment, and Pal Mar/Corbett land acquisition and hydroperiod enhancement.
3. A major outcome of this planning effort will be a more complete set of seasonally managed flow criteria for the river that are driven by natural rainfall patterns. As part of that process, the District will expand the watershed modeling effort to include the entire Loxahatchee watershed (including Martin County).
4. MFL criteria for the river will be revisited after restoration goals and seasonal flow criteria have been defined and a water reservation for the river has been established. The CERP restoration process is viewed by the District as the appropriate process to address restoration needs of the system and seasonal flow characteristics of the river. Once identified, the restoration flow targets will be used in the CERP project design and the water reserved for the river on a project by project basis.

Based on the information provided above, we urge the Village Council to reconsider resolution No. 67-01/02, which opposes implementation of the MFL rule for the Loxahatchee River. Additionally we would look forward to meeting with you personally, to discuss any outstanding issues you may have associated with the Loxahatchee River. Thank you for your continued interest in the water resources of South Florida.

Sincerely,



Kenneth G. Ammon, P.E.

Director

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